

AMENDMENTS TO THE CLAIMS

1. (currently amended) ~~Use of a substance, which binds to and initiates signaling of the human growth hormone (hGH) receptor or a substance, which stimulates release or potentiates the activity of endogenous hGH, for the manufacture of a medicament~~A method for the treatment and/or prevention of a Parkinsonism-Plus Syndrome comprising administering to a person in need thereof a substance selected from the group consisting of:

- (a) human growth hormone;
- (b) a variant of (a) which has at least 70% sequence identity thereto and which has agonistic activity on the hGH receptor;
- (c) a variant of (a) having agonistic activity on the hGH receptor and which is encoded by a DNA sequence which hybridizes to the complement of the native DNA sequence encoding (a);
- (d) a salt of (a), (b) or (c);
- (e) human growth hormone releasing hormone (hGHRH);
- (f) a variant of (e) which has at least 70% sequence identity thereto and which has agonistic activity on the hGHRH receptor;
- (g) a variant of (e) having agonistic activity on the hGHRH receptor and which is encoded by a DNA sequence which hybridizes to the complement of the native DNA sequence encoding (e) under moderately stringent conditions;
- (h) a salt of (e), (f) or (g);
- (i) insulin-like growth factor (IGF);
- (j) a nucleic acid encoding any one of (a)-(i); and
- (k) combinations thereof.

2. (currently amended) ~~Use according to~~The method of claim 1, wherein the Parkinsonism-Plus Syndrome is selected from the group consisting of Progressive Supranuclear Palsy (PSP), Multiple System Atrophy (MSA), Parkinson's-amyotrophic lateral sclerosis-dementia of Guam, Generalized Lewy body disease, Corticobasal ganglionic degeneration, Alzheimer's/Parkinson's overlap syndrome, Huntington's disease: rigid variant, Hallervorden-Spatz disease, and Gerstmann-Strausler syndrome.

3. (canceled)
4. (canceled)
5. (currently amended) The method of claim 1 ~~use according to any of the preceding claims~~, wherein the substance is a naturally-occurring human growth hormone.
6. (currently amended) The method of claim 1 ~~use according to any of claims 1 to 4~~, wherein the substance is recombinant human growth hormone.
7. (canceled)
8. (currently amended) The ~~use according to method of claim 7~~1, wherein the variant C-terminal fragment comprises amino acids 177 to 191 of hGH.
9. (currently amended) The method of claim 1 ~~use according to claims 4 or 6~~, wherein the ~~variant of human growth hormone~~ is methionyl human growth hormone ~~which has an additional methionine residue at the N-terminus of human growth hormone~~.
10. (currently amended) The method of claim 1 ~~use according to claim 4 to 6~~, wherein the ~~fragment of human growth hormone~~variant is a ~~human growth hormone~~ lacking the 15 amino acid residues from Glu32 to Glu46 of hGH.
11. (currently amended) The method of claim 1 ~~use according to claim 4~~, wherein the ~~fragment~~ variant is a ~~truncated human growth hormone~~ lacking the first eight amino acid residues at the N-terminus.
12. (currently amended) The method of claim 1 ~~use according to claim 4~~, wherein the ~~fragment~~ variant is a ~~truncated human growth hormone~~ lacking the first 13 amino acid residues at the N-terminus.
13. (currently amended) The method of claim 1 ~~use according to claim 4~~, wherein the ~~functional derivative~~ substance comprises a dimer of human growth hormone selected from the group consisting of a disulfide dimer connected through interchain disulfide bonds, a covalent irreversible non-disulfide dimer, a non-covalent dimer, and mixtures thereof.
14. (currently amended) The method of claim 1 ~~use according to claim 4~~, wherein the ~~functional derivative~~ substance is a ~~chemical derivative of human growth hormone~~ chemically derivatized.
15. (currently amended) The method of claim 14 ~~use according to claim 14~~, wherein the ~~human growth hormone~~ derivative is selected from the group consisting of:
 - (a) the substance is acetylated at the N-terminus;

- (b) the substance is deaminated;
- (c) the substance is sulfoxidized at one or more methionine residues; and
- (d) the substance is derivatized at one or more amino acid side chains with a polyethylene glycol (PEG) moiety.

16. (canceled)

17. (canceled)

18. (currently amended) The method of claim 1 ~~use according to any of the preceding claims~~, wherein the ~~growth hormone~~ substance is administered at a dosage selected from the group consisting of:

- (a) about 0.1 to 10 mg per person per day; ~~or~~
- (b) about 0.5 to 6 mg per person per day;
- (c) about 1 mg per person per day;
- (d) a dosage administered daily;
- (e) a dosage administered every other day;
- (f) alternating daily dosages, wherein the first dosage is higher than the second dosage;
- (g) alternating daily dosages, wherein the first dosage is about 1 mg per person and the second dosage is about 0.5 mg per person;
- (h) about 6 mg per person;
- (i) about 5 mg per person; and
- (j) about 4.5 mg per person.

19. (canceled)

20. (canceled)

21. (canceled)

22. (canceled)

23. (canceled)

24. (canceled)

25. (currently amended) ~~Use according to~~ The method of claim 4 or 24 ~~14~~, wherein the substance is derivatized ~~functional derivative comprises at least one moiety attached to one or more functional groups, which occur as~~ at one or more side chains ~~on the~~ of amino acid residues.

26. (canceled)

27. (canceled)

28. (currently amended) The method of Use according to claim 27~~1~~, wherein the IGF is ~~selected from~~ IGF-I or IGF-II.

29. (currently amended) The method of claim 1~~Use according to claims 27 or 28~~, wherein the substance is IGF and the patient is medicament~~further comprises and administered~~ IGFBP (Insulin-like Growth Factor Binding Protein), ~~for simultaneous, sequential, or separate use from the IGF.~~

30. (currently amended) ~~Use according to~~ The method of claim 29, wherein the IGFBP is IGFBP3.

31. (canceled)

32. (canceled)

33. (currently amended) The method of claim 1~~The use according to any of the preceding claims~~, wherein the ~~medicament~~ substance is administered in a manner selected from the group consisting of:

(a) the substance is administered subcutaneously;

(b) the substance is administered intramuscularly; and

(c) the substance is administered with an auto-injector.

34. (canceled)

35. (canceled)

36. (currently amended) The method of claim 1 wherein the nucleic acid is an expression~~Use of a vector for inducing and/or enhancing the endogenous production of a substance which binds to and initiates signaling of the human growth hormone (hGH) receptor or a substance which stimulates release or potentiates the activity of endogenous hGH for the preparation of a medicament for the treatment and/or prevention of a Parkinsonism-Plus Syndrome, in particular Multiple System Atrophy.~~

37. (currently amended) ~~Use of a cell that has been genetically modified to produce a substance which binds to and initiates signaling of the human growth hormone (hGH) receptor or a substance which stimulates release or potentiates the activity of endogenous hGH for the preparation of a medicament~~ A method for the treatment and/or prevention of a Parkinsonism-Plus Syndrome, in particular Multiple System Atrophy comprising administering to a person in

need thereof a cell, wherein the cell produces a substance capable of treating or preventing a Parkinsonism-Plus Syndrome according to the method of claim 1.

38. (canceled)

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph at page 15, lines 20-26 with the following:

A short C-terminal hGH fragment had been described to retain a biological activity of hGH, see US 5,869,452. Therefore, the use of a C-terminal fragment of hGH is preferred according to the invention. Fragment hGH177–191, comprising at least amino acid residues 177 to 191 of hGH (LRIVQCRSVEGSCGF) (SEQ ID NO: 1) is particularly preferred in accordance with the present invention. Further preferred are derivatives of this peptide, such as the peptide variants described in US 6,335,319 or WO99/12969, e.g. cyclic peptides.